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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/593,404  | 09/19/2006  | Elias Bitar          | 4590-568            | 1218             |
| 33308 7590 10/30/2008<br>LOWE HAUPTMAN & BERNER, LLP<br>1700 DIAGONAL ROAD, SUITE 300<br>ALEXANDRIA, VA 22314 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| OLSEN, LIN B  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 3661  |             |                      |                     |                  |
| MAIL DATE   |             | DELIVERY MODE        |                     |                  |
| 10/30/2008  |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/593,404

**Applicant(s)**

BITAR ET AL.

**Examiner**

LIN B. OLSEN

**Art Unit**

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on July 14, 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-850)
- \_\_\_\_\_ Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- \_\_\_\_\_ Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on July 14, 2008 was filed after the mailing date of the first action on the merits. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Drawings***

The amendment to the drawings was received on July 14, 2008. These drawings are accepted. The objection to the drawings has been withdrawn.

***Specification***

The amendment to the Specification was received on July 14, 2008. This amendment is accepted. The Preliminary Amendment received September 19, 2006 has been entered. The objection to the specification has been withdrawn.

***Response to Arguments***

Applicant's arguments, see pages 8-10, filed July 14, 2008 with respect to the rejection(s) of claim(s) 1-3 under 35 USC 103(a) have been fully considered and are persuasive because of amendment. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of ambiguity of relative to Euclidean Distance and the non-statutory nature of the claims.

### ***Specification***

The abstract of the disclosure is objected to because the absolute value of the expression  $DT(V)-DT(0)$  is incorrectly represented in lines 11 and 13. Correction is required. See MPEP § 608.01(b).

The Specification at page 16 line 34 through page 17 line 14 and/or

Figure 10, steps 205 – 207 are objected to as not agreeing with each other. The specification discusses the absolute value of the expression  $DT(V)-DT(0)$  equaling or not equaling  $C(V)$ . The Figure shows  $|DT(V)-DT(0)|$  being test as being greater than  $C(V)$ . Correction is required.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: The absolute value of the expression  $DT(V)-DT(0)$  is incorrectly represented in the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims fail to define a statutory process. There does not appear to be sufficient structural and functional interrelationships between the computer program and other claimed elements of a

computer or processor which permit the computer program's functionality to be realized. For the claim to be statutory there is a requirement that there be a functional interrelationship among the data and the computing processes performed when utilizing the data. A process consisting solely of mathematical operation does not manipulate appropriate subject matter and thus cannot constitute a statutory process. While data used in the method may be derived from a physical entity - compasses, an odometer, a GPS, a map or a gyro, the method to be statutory, requires some useful, tangible, concrete result. The current claims appear abstract and do not appear to claim a tangible concrete result. The topological map to which the points regarded as difficult of access are associated is not defined such that it is clear that it is not merely a computer memory data structure.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 2 recite the limitation the Euclidean distances in lines 5 and 10 and line 3 respectively. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the clause starting with "analyzing" be clarified to more clearly distinguish computing C(V) and calculating the curvilinear discrepancies.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Pub. No. 2006/0184327 to Moscovitz et al. for terrain analysis methodologies; U.S. Patent Pub. No. 2007/0031007 to Bitar for excluding the calculation of hard to reach areas; U.S. Patent Pub. No. 2007/-265776 to Meunier et al. for predicting terrain collisions; and EP 1 065 470 to Min-Chung for terrain avoidance algorithms.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LIN B. OLSEN whose telephone number is (571)272-9754. The examiner can normally be reached on Mon - Fri, 8:30 -5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit: 3661

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/Lin B Olsen/  
Examiner, Art Unit 3661

/Thomas G. Black/  
Supervisory Patent Examiner, Art Unit 3661